



DOD
COMMERCIAL TECHNOLOGIES
IN
MAINTENANCE ACTIVITIES

CTMA





- ***Cooperative Agreement between DoD and NCMS***

- ***Co-sponsor technology development, deployment and validation with DoD maintenance activities and NCMS companies***

- ***Goals***

- ***Transfer best commercial technologies and practices to DoD Maintenance Activities***
 - ***Assess benefits of new manufacturing technologies through collaboration between DoD and industry***



- **Funding for Direct Contract support to develop and demonstrate technologies**
- **Focus on cost reduction within DoD Organic Maintenance Activities**
- **Requires a \$2 to \$1 Industry cost share on all technology development funding**
- **Provides for property disposition and collaborative umbrella for all participants**



- **Multi-year Funding Agreement**

\$5 Million (1997)

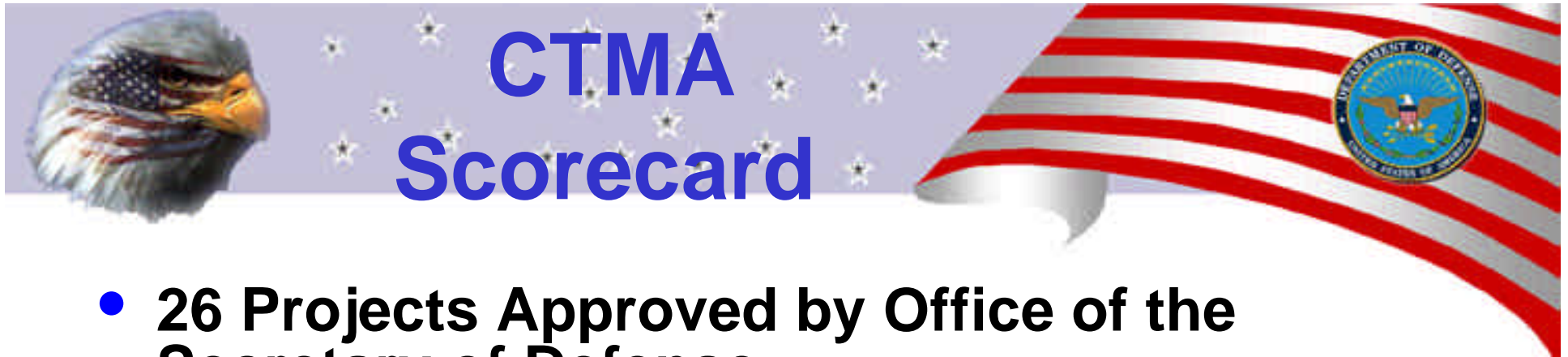
\$6 Million (1999)

\$8 Million (2000)

\$6 Million (2001)

\$6 Million (2002)

\$5.8 Million (2003)



- **26 Projects Approved by Office of the Secretary of Defense**
 - ADUSD (L&MR)MPP&R is Program Sponsor
- **\$17 Million in Direct Contract Costs**
- **Over \$36 Million in Industry Cost Share Commitments**
- **19 DoD Depot Level Maintenance Activities**
- **75 Commercial Industrial Organizations**



- ***Army: Anniston Army Depot, Corpus Christi Army Depot, Tobyhanna Army Depot***
- ***Navy:***
 - ***NADEPs Cherry Point, Jacksonville, North Island***
 - ***Shipyards: Norfolk-Philadelphia Naval Foundry and Propeller Shop, Pearl Harbor, Portsmouth, Puget Sound***
 - ***Trident Refit Facilities Kings Bay, Bangor***
 - ***NAWC China Lake, NUWC Keyport***
- ***AF: Ogden, Oklahoma City, & Warner Robbins ALCs***
- ***MC: Camp Pendleton, Albany MC3, Barstow MC3***
- ***Other: Defense Microelectronics Center (DMEA)***



CTMA

Industry Partners

NCMS

Electronics

Heavy Equipment

SIEMENS

Controls

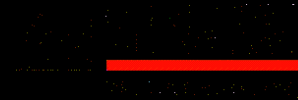


Computers

Raytheon



United Technologies



Software

Machine Tools

Baxter



Aircraft

Pharmaceuticals



Health Care



Bearings



Hamilton Standard
A United Technologies Company



Food



Aerospace



Automotive

EXTRUDEHONE



Rockwell
International

Sensors

DAIMLERCHRYSLER

Communications



- **Process Substitution for Composite Repairs**
- **Portable Thermal Spray Booth Equivalency Unit**
- **Laser Shot Peening for Life Cycle Increase**
- **Next Generation Inspection Systems**
- **Maintenance Mentoring System**
- **Damage Wear Assessment – Rotating Equipment**
- **Enhanced Wiring Integrity**
- **Near Dry Machining of Aluminum**
- **Laser Engineered Net Shaping**
- **Rapid Prototyping Technology Advancement**
- **High Throughput Production Processing**
- **Retrograde Part Identification Using 2nd Generation Permanent Marking Techniques**
- **e-Collaborative Maintenance**
- **High Density Chip-on-Board**
- **Alternative Air Pollution Control Systems**



- **Lead-free Conductive Adhesives**
- **Improved Conformal Coating Removal/Recoat Process**
- **Refurbishing and Extending Sealant Life**
- **Robotic Painting Optimization**
- **Reconfigurable Tooling Systems**
- **Optical Generation of 3D Models for Computer-Aided Manufacturing**
- **Light Armored Vehicle Condition Based Maintenance**
- **Integration of Laser Coating Removal for Helicopter Blade Refurbishment**
- **Remote Engine Borescope Inspection**
- **Flat Wire Deposition Process**
- **Precision Metal Origami**
- **Safety Line Track Manufacturing Process Improvements**



- **New Projects can be proposed by either DoD maintenance activities or industry**
 - Begins with a concept (~5 pages long)
 - Joint Industry/DoD interest and needs
 - Cost/Benefits summary sketched out
 - ROI
 - Participant roles defined
 - Support within Depot for care and custody of program deliverables
- **Proposals submitted to NCMS**
- **Projects approved by ADUSD(L&MR)MPP&R**
 - MTSSG Review



- **Project Ideas**
 - Submit directly to NCMS Staff
 - Respond via website or e-mail
 - CTMA Website: (<http://ctma.ncms.org>)
- **OSD Maintenance Website:**
<http://www.acq.osd.mil/log/mppr>
- **The CTMA Connector Newsletter**
- **Annual CTMA Symposium**
 - 2003 Symposium April 1-3, Salt Lake City